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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,589	11/14/2000	Takahiro Ichikawa	450100-02846	9702
20999	7590	10/05/2004	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			ONUAKU, CHRISTOPHER O	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,589

Applicant(s)

ICHIKAWA ET AL.

Examiner

Christopher O. Onuaku

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1,5-10&15-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Comer (US 6,201,927).

Regarding claim 1, Comer discloses MPEG encoded signal decoding, including the reproduction and decoding of such signals from a medium in a reverse direction, comprising:

a) a data reproduction means for reproducing MPEG data according to the MPEG standard to which address information is added by the sector from a recording medium (see Fig.4 and disk 14 recording medium; col.4, line 17 to col.5, line 50);

b) the 'first' reproduction control information creating means for creating the 'first' reproduction control information to show whether this is MPEG data which will be

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regenerative signal by the use of the address information added to the MPEG data reproduced by the reproduction means (see CPU 510 of Fig.4; col.5, lines 12-27);

c) a storage means for storing MPEG data (Fig.4; buffer memory 60A-60E; col.4, line 40 to col.5, line 50);

d) an error correction means for correcting errors of MPEG data designated as MPEG data to be regenerative signal by the 'first' reproduction control information out of MPEG data reproduced by the reproduction means and stored in the storage means, and for storing the corrected MPEG data in the storage means (see Fig.4; channel processor block 40; col.4, lines 40-47);

e) the second reproduction control information creating means that creates the 'second' reproduction control information designating MPEG data corrected by the correction means depending on the starting point of each picture (see CPU 510 of Fig.4; col.5, lines 13-50);

f) a decoding means for decoding the MPEG data corrected by the correction means and stored in the storage means, and for outputting the same as regenerative signal (see Fig.4; MPEG decoder element 530 and audio decoding block 110; col.5, lines 13-50); and

g) a control means that outputs a part of MPEG data out of the MPEG data stored in the storage means to the decoding means and thus controls a rapid reproduction by referring to the 'second' reproduction control information produced by the 'second' reproduction control information creating means (see Fig.4; CPU 510; col.5, line 50 to col.6, line 10).

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Regarding claim 5, Comer discloses a storage control means (see channel processor 40) for controlling the input and out of MPEG data stored in the storing means (see memory 60A-60E) and wherein the storage control means rearranges MPEG data reproduced from the recording medium (see Fig.4 and disk 14) by the reproduction means and having a data structure sequentially arranged by MPEG data and parity data (Reed Solomon code), and stores the same in the storage means (see col.4, line 35 to col.6, line 10).

Regarding claim 6, the claimed limitations of claim 6 are accommodated in the discussions of claim 1 above; here track reads on the claimed sector and track address reads on claimed sector address (also see col.4, line 17 to col.6, line 10).

Regarding claim 7, Comer discloses wherein the recording medium is an optical memory disk reproducing data by irradiation of light and the reproduction means consists of an optical pickup (see col.3, lines 60-65).

Regarding claim 8, Comer discloses wherein picture signals are recorded in the recording medium (see Fig.2,3&4; disk 14; col.2, line 27 to col.5, line 4).

Regarding claim 9, Comer discloses wherein 'second' reproduction control information creating means creates information reproduced by the reproduction means as the second reproduction control information based on a correction result information

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indicating the result corrected by the correction means and data type information indicating the types of MPEG data (see col.4, line 59 to col.5, line 50; col.10, lines 35-51, the data type information include I-picture, P-picture and/or B-picture\$), and the control means controls MPEG data outputted from the storage means to the decoding means based on the second reproduction control information created by the second reproduction control information creating (see claim 1 discussions) and based on the correction result information, the reproduction apparatus can reproduce normal signals and special (trick play) signals (see control means CPU 510, as discussed in claim 1 above; and col.4, line 59 to col.5, line 50; col.10, lines 35-51).

Regarding claim 10, the claimed limitations of claim 10 are accommodated in the discussions of claim 1 above.

Regarding claim 15, the claimed limitations of claim 15 are accommodated in the discussions of claim 6 above.

Regarding claim 16, the claimed limitations of claim 16 are accommodated in the discussions of claim 7 above.

Regarding claim 17, the claimed limitations of claim 17 are accommodated in the discussions of claim 8 above

Regarding claim 18, the claimed limitations of claim 18 are accommodated in the discussions of claim 9 above

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4&11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Comer in view of Kawamura et al (US 6,308,004).

Regarding claim 2, Comer fails to explicitly disclose wherein the storage means is a ring buffer and stores MPEG data reproduced from the recording medium by the reproduction means at least enough to fill a track or MPEG data processed for error correction by the error correction means at least enough to fill a track. Kawamura et al teach a data reproduction apparatus and a data storage medium that can be preferably applied to, for example, those using a storage medium with digitized moving pictures stored therein, comprising ring buffer 4, that stores MPEG data reproduced from the recording medium, DSM 1, wherein the MPEG data is processed for error correction (see Fig.1; col.8, line 62 to col.9, line 36).

Ring buffer is well known for, for example, temporarily storing recording data, as a buffer whose last address and first address are linked, and whose oldest data are

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always overwritten by the successive image data recording. It would have been obvious to modify Comer by realizing Comer with a ring buffer, as taught by Kawamura, since a ring buffer provides the desirable advantage of, for example, temporarily storing recording data, with a read/write pointers and as a buffer whose last address and first address are linked, and whose oldest data are always overwritten by the successive image data recording.

Regarding claim 3, Comer modified with Kawamura, it would have been obvious that Kawamura would disclose wherein the controlling means controls a data output pointer of the ring buffer based on the 'second' reproduction control information created by the 'second' reproduction control information creating means, since the data stored in the storage means (now replaced by a ring buffer of Kawamura) is error processed MPEG data, and wherein the output of the ring buffer are error processed MPEG data, which are the data processed by the 'second' reproduction control information created by the 'second' reproduction control information creating means.

Regarding claim 4, Comer modified with Kawamura wherein the storage means of Comer is replaced by the ring buffer of Kawamura, it would have been obvious that the 'first' reproduction control information created by the 'first' reproduction control information creating means and the MPEG data arranged by the sector are linked and stored in the storage means, and the correction means corrects an error of MPEG data linked with the first reproduction control information and stored in the storage means,

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and that the 'second' reproduction control information created by the 'second' reproduction control information creating means and the MPEG data arranged by the sector are linked and stored in the storage means, and the control means controls in such a manner that MPEG data linked with the 'second' reproduction control information and stored in the storage means may be reproduced, since it is well known that when data is recorded in the ring buffer, the last address and the first address are linked (see also claim 2 discussions).

Regarding claim 11, the claimed limitations of claim 11 are accommodated in the discussions of claim 2 above.

Regarding claim 12, the claimed limitations of claim 12 are accommodated in the discussions of claim 3 above.

Regarding claim 13, the claimed limitations of claim 13 are accommodated in the discussions of claim 4 above, including the claimed rapid reproduction (trick play; col.4, lines 58-65).

Regarding claim 14, the claimed limitations of claim 14 are accommodated in the discussions of claims 2&5 above.

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Conclusion


5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kikuchi et al (US 6,553,180) teach a digital information recording/playback system which allows the user to create a menu corresponding to recorded contents, and an information recording medium used in this system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher O. Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B. Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


COO
9/18/04


THAI TRAN
PATENT EXAMINER